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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,873	12/10/2003	Gilles Benoit	13445-030001 / L7 (MIT	8066
26161	7590	10/17/2006	10	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER ROJAS, OMAR R	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/733,873

Applicant(s)

BENOIT ET AL.

Examiner

Omar Rojas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26-59, 61-69 and 71-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26, 27, 33-35, 37-59, 61-69, 71-73 and 77-81 is/are rejected.
- 7) ☒ Claim(s) 28-32, 36 and 74-76 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 03/13/2006 & 06/12/2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: Detailed Action, DE 3942556 A1 w/English Abstract.

## **DETAILED ACTION**

### ***Response to Amendment***

1. With regards to the amendment filed on June 12, 2006, all the requested changes to the claims and drawings have been entered. Applicant's assistance in determining the appropriate patentable scope of the claimed invention is appreciated. Claims 26-59, 61-69, 71-81 are pending.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 26, 27, 33-35, 37-59, 61-69, 71-73, and 77-81 have been considered but are moot in view of the new ground(s) of rejection.

### ***Information Disclosure Statement***

3. The prior art documents submitted by Applicant(s) in the Information Disclosure Statement(s) ("IDS") filed on March 13, 2006 and June 12, 2006 have all been considered and made of record (note the attached copy of form(s) PTO-1449).

### ***Drawings***

4. The drawings were received on June 12, 2006. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 26, 27, 33-35, 37-51, 58, 59, 62-69, 71-73, and 80 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by DE 3942556 A1, listed as Document No. N in the attached form PTO-892 (hereinafter "Document N").

*In re* claims 26, 27, 49, and 80, Document N discloses a fiber waveguide (Figure 1) comprising alternating layers L2 and L3 of different materials surrounding a core L1 extending along a waveguide diameter, the alternating layers L2 and L3 define a spiral structure in a cross-sectional plane perpendicular to the waveguide diameter of core L1, the spiral structure comprises a multilayer structure comprising at least two layers L2 and L3 of the different materials encircling the core L1 multiple times, wherein the different materials comprise a polymer and a glass.

Figure 1 of Document N is reproduced below.

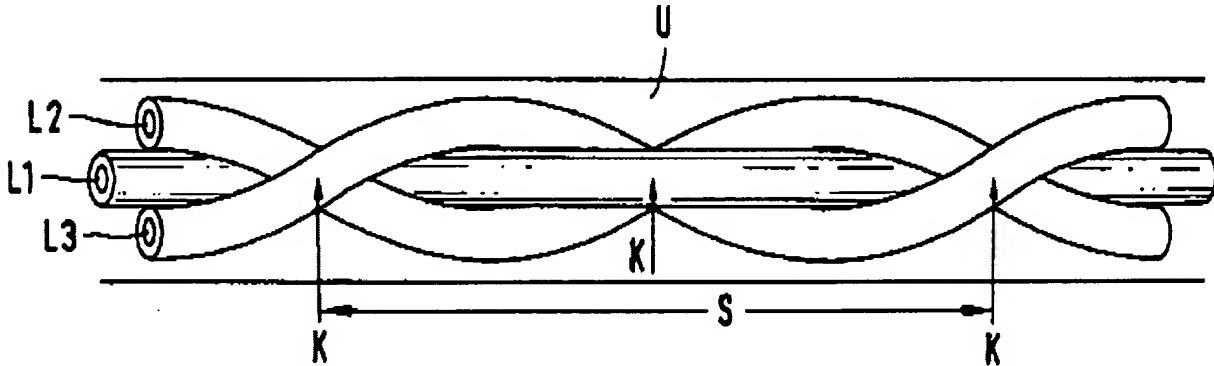


FIG.1

*In re* claims 33-35, 37-51, 58, 59, 62-69, 71-73, and 80, the additional limitations recited by these claims do not further define any additional structure of the device itself and, therefore, are considered functional recitations. Applicant(s) are reminded that the Patent Office is not equipped to test prior art inventions to determine whether they exhibit certain properties or are capable of performing intended uses. Since Document N discloses all the positively defined

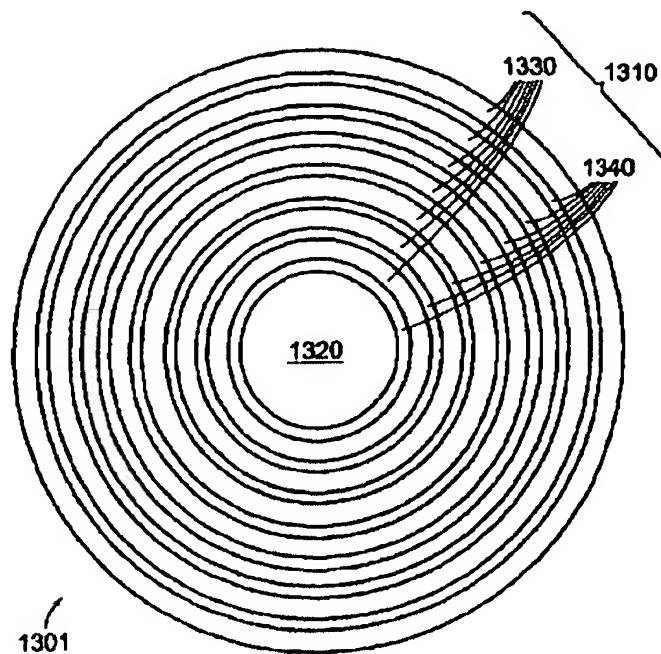
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structural features of claims 33-35, 37-51, 58, 59, 62-69, 71-73, and 80, it is also considered inherently capable of performing or exhibiting the functional limitations recited by these claims.

**7. Claims 49, 51-59, 61-69, 71-73, and 77-81 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,898,359 B2 to Soljacic et al. ("Soljacic"), submitted by applicant(s) in an IDS.**

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

*In re* claims 49 and 80, Soljacic discloses an article comprising a fiber waveguide (e.g., 1301) comprising alternating layers 1330 and 1340 of different dielectric materials surrounding a core 1320 extending along a waveguide axis, the different dielectric materials comprising a polymer and a glass, wherein the fiber waveguide is inherently capable of guiding the EM radiation along the waveguide axis at power densities greater than or equal to about  $300 \text{ W/cm}^2$  at a wavelength of 10.6 microns even when the fiber waveguide is smoothly bent around a 90 degree turn with a bent length of at least 0.3 m because it has the same claimed structural features.

**FIG. 19**

*In re* claim 51, the recited limitations are clearly shown by Soljagic in Fig. 19.

*In re* claims 52-53, the recited limitations are clearly suggested by Soljagic at columns 13-14.

*In re* claims 54-56, the recited limitations are clearly suggested by Soljagic at columns 5-6.

*In re* claim 57, the recited limitations are clearly suggested by Soljagic at columns 26-27.

*In re* claims 61 and 77-79, the recited limitations are clearly suggested by Soljagic at columns 24-25.

*In re* claims 58, 59, 62-69, 71-73, and 80-81, the additional limitations recited by these claims do not further define any additional structure of the device itself and, therefore, are considered functional recitations. Applicant(s) are reminded that the Patent Office is not equipped to test prior art inventions to determine whether they exhibit certain properties or are capable of performing intended uses. Since Soljagic discloses all the positively defined structural features

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of claims 58, 59, 62-69, 71-73, and 80-81, it is also considered inherently capable of performing or exhibiting the functional limitations recited by these claims.

***Allowable Subject Matter***

8. Claims 28-32, 36, and 74-76 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 28-32, 36, and 74-76, each of the claims recites a combination of features not taught or fairly suggested in either Document N or Soljacic. Furthermore, Document N and Soljacic are considered sufficiently non-analogous art so as to preclude combining the two references under 35 U.S.C. § 103.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (571) 272-2357. The examiner can normally be reached on Monday-Friday (12:00PM-8:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick, can be reached on (571) 272-2344. The official facsimile number for regular and After Final communications is (571) 273-8300. The examiner's RightFAX number is (571) 273-2357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

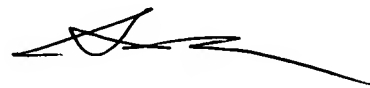
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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Omar Rojas  
Patent Examiner  
Art Unit 2874

or  
October 16, 2006



SUNG PAK  
PRIMARY EXAMINER